CIVIL TECH LABS

Accredited by **NABL** as per ISO/ IEC 17025 : 2005

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027

Ph: 080 - 4114 2867 / Mob. : 96862 31801. Email: civiltechlabs@gmail.com

T-2654

To,

Assistant Executive Engineer
Yelahanka Sub Division,
BBMP, Bangalore.

21st February 2015

Dear Sir,

Sub: Improvements to drains at 19th to 21st cross roads of eastern side of kondappa layout in ward no-02 of Yelahanka Sub division.
Testing of cubes – Reg.

As requested the 28th day Compressive Strength Test of Cubes was carried out for the above work for the samples supplied by you.

Please find the enclosed Test Report of the above.

Thanking you,

For Civil Tech Labs,

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS
#25, 1st Cross, Sarvana Garden, Bhoopasandra, Bangalore - 560024
Ph: 080 - 41431361, E-mail: civiltechlabs@gmail.com

TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	A.E.E, Yelahanka Sub Division, BBMP
Name of Work	Improvements to drains at 19th to 21st cross roads of eastern side of kondappa layout in ward no: 02 of Yelahanka Sub division
Name of Agency	Sri. T. C. Pratap
Grade of Concrete	M-30
No. of cubes tested	3
Dimension of Specimen	150mmx150mmx150mm
Cross Sectional Area	22500 mm²
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	Identification	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm²)	Avg Compressive Strength (N/mm²)
1	CC-Work	24/01/2015	21/02/2015	28	8.18	695	30.89	31.19
2					8.19	700	31.11	
3					8.20	710	31.56	

Note:
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3. Any correction invalidates this report.
4. The results are based on the tests conducted on samples supplied by the customer.

Lab Incharge
Civil Tech Labs

CIVIL TECH LABS BANGALORE

CIVIL TECH LABS

Accredited by **NABL** as per ISO/ IEC 17025 : 2005

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027

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T-2654

To,

Assistant Executive Engineer
Yelahanka Sub Division,
BBMP, Bangalore.

19th February 2015

Dear Sir,

Sub: Improvements to drains at 19th to 21st cross roads of eastern side of kondappa layout in ward no-02 of Yelahanka Sub division.
Testing of cubes – Reg.

As requested the 28th day Compressive Strength Test of Cubes was carried out for the above work for the samples supplied by you.

Please find the enclosed Test Report of the above.

Thanking you,

For Civil Tech Labs,

Khushboo

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Yelahanka Sub Division, BBMP
Name of Work	Improvements to drains at 19th to 21st cross roads of western side of kondappa layout in ward no-02 of Yelahanka Sub division
Name of Agency	Sri. T. C. Puttaiah
Grade of Concrete	M-20
No. of cubes tested	3
Dimension of Specimen	150mmx150mmx150mm
Cross Sectional Area	22500 mm²
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	Identification	Date of Casting	Date of Testing	Age at test (Days)	Weight Kg	Failure Load (KN)	Compressive Strength (N/mm²)	Avg Compressive Strength (N/mm²)
1	CC-Work	22/01/2015	19/02/2015	28	8.16	470	20.89	21.11
2					8.17	475	21.11	
3					8.18	480	21.33	

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4. The results are based on the test conducted on samples supplied by the customer.

Lab Incharge
Civil Tech Labs

CIVIL TECH LABS

Accredited by NABL as per ISO/ IEC 17025 : 2005

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027

Ph: 080 - 4114 2867 / Mob. : 96867 31801, Email: civiltechlabs@gmail.com

T-2654

To,

Assistant Executive Engineer
Yelahanka Sub Division,
BBMP, Bangalore.

13th January 2015

Dear Sir,

Sub: Testing of Materials.

As requested, tests on physical properties were carried out for the materials supplied by you, for the work of **'Improvements to drains at 19th to 21st cross roads of eastern side of kondappa layout in ward no-02 of Yelahanka Sub division'.**

Please find the enclosed Test Reports of the above.

Thanking You,
For Civil Tech Labs

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS BANGALORE

13/1

CIVIL TECH LABS
#3, 1st Cross, Shivanna Colony, Mysore Road, Bangalore - 560 039.
Ph: 080 - 23392867, Email: civiltechlabs@gmail.com

TEST REPORT

TEST ON COARSE AGGREGATES 20mm ↓ Graded Ref IS:383/2016

Name & Address of the Customer	AEE, Yelahanka Sub Division, BBMP
Name of Work	Improvements to drains at 19th to 21st cross roads of eastern side of kondappa layout in ward no-02 of Yelahanka Sub division
Name of the Agency	Sri. T. C. Prathap
Date of Testing	12/01/2015
Specific Gravity	2.61
Water Absorption in %	0.33

IS Sieve Designation (mm)	**Sieve Analysis (% Passing IS Sieve)**	**Grading Requirement as per IS:383-1970 (Reaffirmed 2011)**	**Remarks**
40	**100**	100	**Satisfies the requirement**
20	**98.4**	95-100	
10	**35.1**	25-55	
4.75	**7.6**	0-10	

Note:

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TEST REPORT

TEST ON COARSE AGGREGATES 40mm ↓ Graded Ref IS:383/2380

Name & Address of the Customer	AEE, Yelahanka Sub Division, BBMP
Name of Work	Improvements to drains at 19th to 21st cross roads of eastern side of kondappa layout in ward no-02 of Yelahanka Sub division
Name of the Agency	Sri. T. C. Prathap
Date of Testing	12/01/2015
Specific Gravity	2.67
Water Absorption in %	0.25

IS Sieve Designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS:383-1970 (Reaffirmed 2011)	Remarks
80	100	100	Satisfies the requirement
40	98.5	95-100	
20	53.2	30-70	
10	23.1	10-35	
4.75	0.8	0-5	

Note:

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TEST REPORT

TEST ON FINE AGGREGATES Ref:(9:383)/2386

Name & Address of the Customer	AEE, Yelahanka Sub Division, BBMP
Name of Work	Improvements to drains at 19th to 21st cross roads of eastern side of kendappa layout in ward no-02 of Yelahanka Sub division
Name of the Agency	Sri. T. C. Prathap
Date of Testing	12/01/2015
Specific Gravity	**2.66**

Sample	IS Sieve designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS:383-1970				Grading Zone
			ZONE-I	ZONE-II	ZONE-III	ZONE-IV	
River Sand	10	**100**	100	100	100	100	II
	4.75	**98.1**	90-100	90-100	90-100	95-100	
	2.36	**85.2**	60-95	75-100	85-100	95-100	
	1.18	**75.3**	30-70	55-90	75-100	90-100	
	0.6	**46.4**	15-34	35-59	60-79	80-100	
	0.3	**26.1**	5-20	8-30	12-40	15-50	
	0.15	**3.5**	0-10	0-10	0-10	0-15	

Note:

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Lab Incharge
Civil Tech labs

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5, 1st Cross, Sangam Colony, Mysore Road, Bangalore - 560 026
Ph: 080 - 23378647, Email: civiltechlabs@gmail.com

TEST REPORT

TEST ON CEMENT

Name & Address of the Customer	AEE, Yelahanka Sub Division, BBMP
Name of Work	Improvements to drains at 19th to 21st cross roads of eastern side of Kodappa layout in ward no-02 of Yelahanka Sub division
Name of the Agency	Sri. T. C. Prathap
Date of Testing	12/01/2015

Tests	Test Method As Per IS & Apparatus		Results		Requirements As Per IS 8112:1989	Remarks
	IS Code	Method	Value	Unit		
Initial Setting Time	IS-4031 (Part-5) 1988	VICAT	51	min	Not Less Than 30 Minutes	Satisfies Requirement
Final Setting Time	IS-4031 (Part-5) 1988	VICAT	486	min	Not More Than 600 Minutes	Satisfies Requirement
Soundness	IS-4031 (Part-3) 1988	LE-CHATELIER	3	mm	Not More Than 10 mm	Satisfies Requirement

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4. The results are based on the test conducted on samples supplied by the client.

Lab Incharge
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CIVIL TECH LABS
3, 1st Block, Sowparnika Complex, Bhoopathi Road, Bangalore - 560 032
Ph: 080 - 23 33 7867, Email: civiltechlabs@rediffmail.com

TEST REPORT

TEST ON REINFORCEMENT STEEL BARS 16 mm

Name & Address of the Customer	AEE, Yelahanka Sub Division, BBMP
Name of Work	Improvements to drains at 19th to 21st cross roads of eastern side of kondappa layout in ward no-02 of Yelahanka Sub division
Name of the Agency	Sri. T. C. Prathap
Date of Testing	12/01/2015

Sl.No.	Description	Result	IS 1786-2008 Min. Requirements	Remarks
1	Measured Diameter mm	16	16	Satisfactory
2	Wt/m Length (Kg/m)	1.58	1.58	Satisfactory
3	Bend & RebendTest	Pass	Should not Crack or Fracture	Satisfactory
4	Elongation (%)	15.8	14.5	Satisfactory
5	Yield Stress(N/Sq.mm)	426	415	Satisfactory
6	U T S (N/Sq.mm)	532	485	Satisfactory

Note:
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4. The results are based on the test conducted on samples supplied by the customer.

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Civil Tech Labs

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TEST REPORT

TEST ON REINFORCEMENT STEEL BARS 12mm

Name & Address of the Customer	AEE, Yelahanka Sub Division, BBMP
Name of Work	Improvements to drains at 19th to 21st cross roads of eastern side of kondappa layout in ward no-02 of Yelahanka Sub division
Name of the Agency	Sri. T. C. Prathap
Date of Test	12/01/2015

Sl.No.	Description	Result	IS 1786-2008 Min. Requirements	Remarks
1	Measured Diameter mm	12	12	Satisfactory
2	Wt/m Length (Kg/m)	0.888	0.888	Satisfactory
3	Bend & RebendTest	Pass	Should not Crack or Fracture	Satisfactory
4	Elongation (%)	15.4	14.5	Satisfactory
5	Yield Stress(N/Sq.mm)	422	415	Satisfactory
6	U T S (N/Sq.mm)	528	485	Satisfactory

Note:

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4. The results are based on the test conducted on samples supplied by the client.

Lab Incharge
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TEST REPORT

TEST ON REINFORCEMENT STEEL BARS 10mm

Name & Address of the Customer	AEE, Yelahanka Sub Division, BBMP
Name of Work	Improvements to drains at 19th to 21st cross roads of eastern side of kondappa layout in ward no-02 of Yelahanka Sub division.
Name of the Agency	Sri. T. C. Prathap
Date of Testing	12/01/2015

Sl.No.	Description	Result	IS 1786-2008 Min. Requirements	Remarks
1	Measured Diameter mm	10	10	Satisfactory
2	Wt/m Length (Kg/m)	0.618	0.617	Satisfactory
3	Bend & Rebend Test	Pass	Should not Crack or Fracture	Satisfactory
4	Elongation (%)	15.1	14.5	Satisfactory
5	Yield Stress(N/Sq.mm)	419	415	Satisfactory
6	U T S (N/Sq.mm)	524	485	Satisfactory

Note:

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4. The results are based on the test conducted on samples supplied by the client.

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TEST REPORT

TEST REPORT ON REINFORCEMENT STEEL BARS 8 mm

Name & Address of the Customer	AEE, Yelahanka Sub Division, BBMP
Name of Work	Improvements to drains at 19th to 21st cross roads of eastern side of kondappa layout in ward no-02 of Yelahanka Sub division
Name of the Agency	Sri. T. C. Prathap
Date of Test	12/01/2015

Sl.No.	Description	Result	IS 1786-2008 Min. Requirements	Remarks
1	Measured Diameter mm	8	8	Satisfactory
2	Wt/m Length (Kg/m)	0.396	0.395	Satisfactory
3	Bend & RebendTest	Pass	Should not Crack or Fracture	Satisfactory
4	Elongation (%)	14.9	14.5	Satisfactory
5	Yield Stress(N/Sq.mm)	416	415	Satisfactory
6	U T S (N/Sq.mm)	520	485	Satisfactory

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4. The results are based on the test conducted on samples supplied by the client.

Lab Incharge
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CIVIL TECH LABS
5, 1st Cross, Sunshine Colony, Attibele Road, Bangalore - 560102
Ph: 9901[illegible], Email: [illegible]

TEST REPORT

TESTS ON SOLID BLOCKS

Name & Address of the Customer	AEE, Yelahanka Sub Division, BBMP
Name of Work	Improvements to drains at 19th to 21st cross roads of eastern side of kondappa layout in ward no-02 of Yelahanka Sub division
Sample received on	Sri. T. C. Prathap
Date of Testing	12/01/2015
Technical Reference	IS: 2185(Part-I) 2005 (Reaffirmed 2010)
No. of samples tested	8
Grade	C (4.0)

1. COMPRESSIVE STRENGTH

Sl. No.	Nominal Dimension (cms)	Compressive strength (N/mm²)	Minimum Compressive Strength as per IS: 2185(Part-I) 2005	
			Individual	Avg. of 8 samples
1	40x20x20	4.2	Minimum Compressive Strength of Individual Units	Minimum Average Compressive Strength of Units
2		4.1		
3		4.3	For Grade C (5.0)- 4.0 N/mm² For Grade C (4.0)- 3.2 N/mm²	For Grade C (5.0)- 5.0 N/mm² For Grade C (4.0)- 4.0 N/mm²
4		4.4		
5		4.2		
6		4.3		
7		4.2		
8		4.1		
Average Compressive strength (N/mm²)		4.2		

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2. WATER ABSORPTION

Sl. No.	Nominal Dimension (cms)	Water Absorption (% by weight)	Average (% by weight)	Requirements as per IS : 2185(Part-I) 2005
1	40x20x20	6.90	7.00	When three samples are tested the average water absorption shall not be more than 10% by mass
2		7.00		
3		7.10		

3. BLOCK DENSITY

Sl. No.	Nominal Dimension (cms)	Block Density (Kg/cum)	Average (Kg/cum)	Requirements as per IS: 2185(Part-I) 2005
1	40x20x20	1861.8	1861.8	The Solid Concrete blocks used as load bearing units shall have average block density not less than 1800Kg/m³
2		1862.4		
3		1861.3		

Remarks	Satisfies the Requirements.

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Lab Incharge
Civil Tech Labs